Amendments to the Specification:

Page 2, amend the paragraph beginning on line 9 to read as follows:

In order to improve this, it is effective to make the temperature near the center of the wafer higher than that near the outer circumferential zone thereby suppressing re-deposition of the reaction products to the etching surface. Accordingly, it is necessary to control the temperature of the ~~ware~~ wafer or the stage such that the temperature of the semiconductor wafer is made uniform within the surface, or distributed such that it is optionally higher for the central side and lower for the outer circumferential side within the surface of the semiconductor wafer during plasma etching, thereby suppressing the effect caused by the distribution of the reaction product.

Page 3, amend the paragraph beginning on line 13 to read as follows:

The prior art ~~5~~ 4 has a structure in which a plurality of independent coolants flow channels capable of controlling the flow rate of coolant are provided in a metal electrostatic adsorption electrode block constituting the holding stage and a dielectric film is disposed to the surface of the electrode block.

Page 3, amend the paragraph beginning on line 18 to read as follows:

Further, Japanese Patent Laid-Open No. H9(1997)-17770 (prior art ~~6~~ 5) discloses a structure for controlling the temperature distribution in the surface of a semiconductor wafer, of providing two systems of coolant flow channels concentrically in the inside of an electrostatic adsorption electrode for circulating coolants at a relatively lower temperature in the coolant flow channel at the outside

and coolants at a relatively higher temperature in the coolant flow channel in the inside.

However, no sufficient consideration has been taken in each of the prior arts described above for processing the specimen as an object of processing in a short period of time thereby improving the throughput of the processing.

Page 8, amend the paragraph beginning on line 9 to read as follows:

Fig. 2A is a perspective view and partial cross sectional view showing a schematic constitution of a specimen table in the embodiment shown in Fig. 1, and Fig. 2B is a cross sectional view.

Page 8, amend the paragraph beginning on line 11 to read as follows:

Fig. 3A is a schematic view showing a constitution of coolant flow channels of the embodiment shown in Fig. 2, and Fig. 3B shows a modified embodiment.

Page 8, amend the paragraph beginning on line 13 to read as follows:

~~Fig. 4 is a schematic view showing a modified embodiment of coolant flow channels of the embodiment shown in Fig. 2.~~

Page 8, amend the paragraph beginning on line 15 to read as follows:

Fig. ~~5~~ 4 is a characteristic graph showing an example of a pressure distribution of a He gas between an electrostatic adsorption electrode and a semiconductor wafer.

Page 8, amend the paragraph beginning on line 18 to read as follow:

Fig. ~~6~~ 5 is a characteristic graph showing an example of a surface temperature of a semiconductor wafer by an electrostatic adsorption electrode.

Page 8, amend the paragraph beginning on line 20 to read as follows:

Fig. ~~7~~ 6A is a graph showing an example of a surface temperature of a semiconductor wafer in a preferred embodiment of an electrostatic adsorption electrode according to the invention in comparison with the prior art.

Page 8, amend the paragraph beginning on line 23 to read as follows:

Fig. ~~8~~ 6B is a graph showing an example of a surface temperature of a dielectric film in a preferred embodiment of an electrostatic adsorption electrode according to the invention in comparison with the prior art.

Page 8, amend the paragraph beginning on line 26 to read as follows:

Fig. ~~9~~ 7 is a cross sectional view showing a second preferred embodiment of an electrostatic adsorption electrode according to the invention.

Page 9, amend the paragraph beginning on line 1 to read as follows:

~~Fig. 10 is a cross sectional view showing a third preferred embodiment of an electrostatic adsorption electrode according to the invention.~~ Figs. 8A and 8B are schematic views showing an example of a constitution of a film of the semiconductor wafer surface according to the preferred embodiment of the plasma processing apparatus shown in Fig. 1.

Fig. 9 is a graph prepared by patterning the change with time of the operation conditions of the plasma processing apparatus according to this invention upon processing for the embodiment shown in Figs. 8A and 8B.

Fig. 10 is a flow chart showing the outlined flow for the operation of the plasma processing apparatus shown in Fig. 1.

Page 10, amend the paragraph beginning on line 19 to read as follows:

That is, the specimen 106 is held on the surface of the specimen table 107 by an electrostatic chuck disposed to the specimen table 107 for adsorbing the specimen 106 by electrostatic effect. However, since the surface has fine unevenness, transmission of heat from a heat source such as plasmas through the specimen 106 to the specimen table 107 is sometimes insufficient in a state where they are merely adsorbed. In view of the above, the temperature of the specimen ~~6~~ 106 is controlled to a desired value by introducing a gas capable of controlling the heat conductivity between them.

Page 10, amend the paragraph at line 27 to read as follows:

A gas such as helium or argon which gives less effect on the behavior of the processing gas in the processing chamber 103 and increases the heat conductivity compared with the case of merely utilizing contact between the specimen 106 and the specimen table 107 is introduced as the heat conducting gas. Further, the helium gas, for example, can change the heat conductivity by controlling the pressure between the specimen 106 and the specimen table 107. That is, it has a feature of increasing the heat conductivity as the gas pressure is higher and decreasing the heat conductivity as it lowers.